AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of representing a multimedia content management object as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

~~a.~~ associating a root component of the content management object ~~as an item to~~ with a row in a first relational database table;

~~b.~~ associating attributes of the root component ~~to~~ with corresponding columns of the first relational database table;

~~c.~~ associating additional components of the content management object, if any, ~~to~~ with rows in additional relational database tables; and

~~d. wherein~~ using the item defined by the relational database tables ~~is used as a building block~~ to construct a plurality of high level content management data models.

2. (currently amended): The method of claim 1, wherein each of the additional components comprises a child component of a root component or a child component of another component.

3. (currently amended): The method of claim 2, further comprising using a foreign key in a child component to reference its parent component.

4. (currently amended): The method of claim 1, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

5. (currently amended): The method of claim 1, wherein an attribute comprises a pointer to another content management object.

6. (currently amended): The method of claim 1, wherein a row in ~~an~~ a table comprises a link between a source item and a target item.

7. (currently amended): A method of representing a multimedia content management object in a database comprising a high level content model and a low level physical model of ~~the~~ multimedia content data, said low level physical model providing a mapping to a data engine, said method comprising:

a. entering multimedia content data metadata and schema in the low level physical ~~representation~~ model, and

b. mapping the metadata and schema to the data engine.

8. (currently amended): The method of claim 7, wherein the low level physical model supports a plurality of high level content models.

9. (currently amended): The method of claim 7, wherein the ~~a~~ high level content model comprises an application program interface embodying a representation of one or more data ~~structure~~ structures and constraints.

10. (currently amended): The method of claim 7, wherein the high level content model supports a plurality of content application requirements.

11. (currently amended): The method of claim 7, wherein the low level physical model is extensible.

12. (currently amended): The method of claim 7, further comprising adding additional high level content models.

13. (currently amended): The method of claim 7, wherein the data engine is chosen from the group consisting of relational database management systems, object oriented database management systems, object-relational database management systems and XML data repositories.

14. (currently amended): A method of managing a multimedia content management system comprising a multimedia content management object ~~comprising~~ including multimedia object components and multimedia object attributes, ~~and~~ said multimedia content management object represented as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

~~a.~~ associating a root component of the content management object ~~to~~ with a row in a first relational database table;

~~b.~~ associating attributes of the root component ~~to~~ with corresponding columns of the first relational database table;

~~c.~~ associating additional components of the content management object, if any, ~~to~~ with rows in additional relational database tables; and

~~e. wherein~~ using the item defined by the relational database tables ~~is used as a building block~~ to construct a plurality of high level content management data models.

15. (currently amended): The method of claim 14, wherein each of the additional components comprises a child component of a root component or a child component of another component.

16. (currently amended): The method of claim 15, further comprising using a foreign key in a child component to reference its parent component.

17. (currently amended): The method of claim 14, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

18. (currently amended): The method of claim 14, wherein an attribute comprises a pointer to another content management object.

19. (currently amended): The method of claim 14, wherein a row in another table comprises a link between a source item and a target item.

20. (currently amended): A system for managing and delivering one or more multimedia data object items of a multimedia content management object from a multimedia data object content repository through a multimedia data object content server to a client, ~~wherein the multimedia data object comprises multimedia data object items,~~ each of the multimedia data object items comprising multimedia data object attributes and components, and wherein the multimedia data object content server is controlled and configured to:

a. associate a root component of the content management object ~~to~~ with a row in a first relational database table;

b. associate attributes of the root component ~~to~~ with corresponding columns of the first relational database table; and

c. associate additional components of the content management object, if any, ~~to~~ with corresponding rows in additional relational database tables;

wherein the ~~item is used as a building block~~ data object items are used to construct a plurality of high level data models.

21. (currently amended): The system of claim 20 wherein, each of the additional components comprises a child component of ~~a~~ the root component, or a child component of another child component.

22. (currently amended): The system of claim 21, wherein a foreign key is used in a child component to reference ~~is~~ its parent component.

23. (currently amended): The system of claim 20, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

24. (currently amended): The system of claim 20, wherein an attribute comprises a pointer to another content management object.

25. (currently amended): The system of claim 20, wherein a row in another table comprises a link between a source item and a target item.

26. (currently amended): A program product comprising computer readable code on one or more media, said program code being capable of controlling and configuring a computer system having one or more computers to manage a multimedia content management system having a high level content model and a low level physical model of ~~the~~ multimedia content data, said low level physical model providing a mapping to a data engine, by representing a multimedia content management object in a database by the method comprising:

a. entering multimedia content data metadata and schema in the low level physical ~~representation~~ model, and

b. mapping the metadata and schema to the data engine.

27. (currently amended): The program product of claim 26, wherein the low level physical model supports a plurality of high level content models.

28. (currently amended): The program product of claim 26, ~~a~~ wherein the high level content model comprises an application program interface embodying a representation of one or more data ~~structure~~ structures and constraints.

29. (currently amended): The program product of claim 26, wherein the high level content model supports a plurality of content application requirements.

30. (currently amended): The program product of claim 26, wherein the low level physical model is extensible.

31. (currently amended): The program product of claim 26, wherein the low level physical model supports additional high level content models.

32. (currently amended): The program product of claim 26, wherein the data engine is chosen from the group consisting of relational database management systems, object oriented database management systems, object-relational database management systems, and XML data repositories.

33. (currently amended): A program product comprising computer readable code on one or more media, said program code being capable of controlling and configuring a computer system having one or more computers to manage a multimedia content management system comprising a multimedia content management object having multimedia object components and multimedia object attributes, ~~and~~ said multimedia content management object represented as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, by a method comprising:

~~a.~~ ——associating a root component of the content management object ~~to~~ with a row in a first relational database table;

~~b.~~ associating attributes of the root component ~~to~~ with corresponding columns of the first relational database table; ~~and~~

~~c.~~ associating additional components of the content management object, if any, ~~to~~ with rows in additional relational database tables; and

~~wherein~~ using the item defined by the relational database tables ~~is used as a building block~~ to construct a plurality of high level data models.

34. (currently amended): The program product of claim 33, wherein ~~a component~~ each of the additional components comprises a child component of ~~a~~ the root component or a child component of another child component.

35. (currently amended): The program product of claim 34, ~~containing~~ further comprising program code to direct ~~a~~ the computer system to use a foreign key ~~as~~ in a child component to reference its parent component.

36. (currently amended): The program product of claim 33, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

37. (currently amended): The program product of claim 33, further comprising program code ~~of~~ for populating a multimedia content management system with content schema and metadata, said program code adapted to configure and control the computer to

a. present a query to a user as to a content item;

b. based upon the end user's response, present a subsequent query as to the content item;

c. based upon the end user's further responses, determine the sub-components and attributes of the item.

38. (currently amended): A method of populating a multimedia content management system with content schema and metadata, said multimedia content management system comprising a multimedia content management object having multimedia object components and multimedia object attributes, and a relational database adapted for representing component and attribute data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

~~a.~~ presenting a query to a user as to a content item;

~~b.~~ based upon the end user's response, presenting a subsequent query as to the content item;

~~c.~~ based upon the end user's further responses, determining the ~~sub-components~~ components and attributes of the content item; ~~and~~

associating each component of the content item with a row in a separate relational database table; and

~~d.~~ associating attributes ~~and components, if any,~~ of the content item ~~object to~~ with corresponding columns of the relational database tables.

39. (currently amended): The method of claim 38, further comprising using a foreign key in a child component to reference its parent component.

40. (currently amended): The method of claim 38, wherein a ~~component~~ sub-component comprises a child component of a root component or a child component of another child component.

41. (currently amended): The method of claim 38, wherein an attribute comprises a pointer to a data repository where the component is stored.

42. (currently amended): The method of claim 38, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

43. (currently amended): The method of claim 38, wherein a row in another table comprises a link between a source item and a target item.